Educational Theorists on learning:

* Dewey says that people build knowledge from their experiences. (cite?)
* Vygotski says that to maximize learning one should tailor activities to fit in the Zone of Proximal Development (ZPD) – the area between what one can do independently and what one can do with help. (cite?)
* Carol Ann Tomlison, in her work on differentiated instruction says that … (find & cite)

All of these tell us to meet learners where they are and take them further to new understandings. Great leaders are in essence great teachers. They meet those they lead where they are and take them to new understandings.

Educational Theorists and researchers on leadership:

* Gardner writes that leaders must “retain some links to expert knowledge, on the one hand, and some ability to communicate to non-experts on the other” (p. 302) regarding the stories they tell.

Gardner, H. (1995). *Leading minds: an anatomy of leadership.* New York: Basic Books

* This is what teachers do. They retain expert knowledge, including that beyond the content they are teaching (Schulman, 1986; Ball – which?) to bring learners from where they are to where the teacher wants them to go.

Leaders are doing the same thing – just to a society or organization rather than to students in classrooms.

* Burns – transactional versus transformational leadership.

Burns as cited in Marzano.

* Marzano outlines first order and second order change.

Marzano, R., Waters, T., and McNulty, B. A. (2005). *School leadership that works: from research to results*. Alexandria, VA: Association for Supervision and Curriculum Development.

Maybe – Learning with conceptual understanding can be a precursor to second-order change. Because the learner builds connections between what they already know and can then apply it to new situations and grow into novel and visionary methods.

Transactional leadership corresponds to giving procedural or factual knowledge. Transformational leadership corresponds with transformational leadership.

Research:

Research in a field is the rigorous documentation of the learning in that field over time. (Stetson, personal conversation)

Know the key researchers in my field and methods:

* error-correction:
  + Borasi – errors

Borasi, R. (1996). *Reconceiving mathematics instruction: a focus on errors.* Norwood, NJ: Ablex.

* + Bray – teacher’s error correction practices depend on

Bray, W. S. (2011). A collective case study of the influence of teachersʼ beleifs and knowledge on error-handling practices during class discussion of mathematics. *Journal for Research in Mathematics Education*, *42*(1), 2-38.

* + Son & Sinclair – when analyzing geometry errors, pre-service teachers identify errors based on conceptual ideas, but treat errors in procedural ways.

Son, J., & Sinclair, N. (2010). How preservice teachers interpret and respond to student geometric errors. *School Science and Mathematics, 110*(1), 31-46.

* + Riccomini,

Riccomini, P. J. (2005). Identification and remediation of systematic error patterns in subtraction. *Learning Disability Quarterly*, *28*(3), 233-242.

* + Cooper

Cooper, S. (2009). Preservice teachers’ analysis of children's work to make instructional decisions. *School Science and Mathematics*, *109*(6), 355-362.

* conceptual and procedural knowledge:
  + Hiebert,

Hiebert, J.. & Lefevre, P. (1986). Conceptual and procedural knowledge in mathematics: an introductory analysis. In J. Hiebert (Ed.), *Conceptual and Procedural knowledge: the case of mathematics* (pp. 1-27). Hillsdale, NJ: Lawrence Erlbaum Associates.

* pedagogical content knowledge:
  + Schulman

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher* *, 15* (2), 4-14.

* + Ball – MKT

Ball, D. L., Thames, M. H., & Phelps, G. C. (2008). Content knowledge for teaching: what makes it special? *Journal of Teacher Education*, *59*(5), 389-407.